# AP ENVIRONMENTAL SCIENCE

Course Description and Requirements

## Course Description

The AP Environmental Science course designed to be the equivalent of a one semester, introductory college course in environmental science. The goal is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems, and to examine alternative solutions for resolving and /or preventing them.

## Course Prerequisites

AP Environmental Science is open to all students who have taken biology and chemistry.

## Methods

Instruction consists mostly of lectures, assigned readings, discussions, and written assignments – including research papers, special projects, in-class assignments, and homework.

Another critical component of the course also includes a laboratory and field investigation component. The goal of this component is to complement the classroom portion of the course by allowing students to learn about the environment through firsthand observation and experience.

**Course Outline:**

**1st Semester**

Topic: Introduction to Environmental Science

Topic: Human Population

Topic: The Biogeochemical Cycles

Topic: Ecosystems and Ecological Communities

Topic: World Food Supply and Agriculture

Topic: Wildlife Resources and Management

Topic: Introduction: Energy Resources and Energy Use

**2nd Semester**

Topic: Energy Resources and Energy Use

Topic: Environmental Health and Toxicology

Topic: Water

Topic: The Atmosphere, Climate and Global Warming

Topic: Air Pollution, Ozone Depletion

Topic: Environmental Economics and Urban Development

Topic: Waste Management

Topic: Minerals and Mining

Topic: Environmental Impact and Planning

**Evaluation and Assessment:**

Students are evaluated in a variety of ways, including but not limited to:

active participation in class activities and discussions

successful group interactions in problem solving and laboratory situations

successful completion of tests, quizzes, free response questions and labs

successful completion of individual and/or group projects

successful completion of all assigned homework

Student Work is graded on a weighted point system, as follows:

60 % is based on summative assessment such as multiple choice exams and free response questions.

30 % is based on labs, quizzes, projects and other formative assessment

10 % is based on home and classwork

The standard grade scale is as follows:

A = 85 – 100% B = 75 – 84 % C = 65 – 74 % D = 55 – 64%

**On-going Assignments:**

Assignments and powerpoint templates can be downloaded from the APES website: <https://santiagoapes.wikispaces.com>. Announcements and assignments are also posted on: <https://classroom.google.com>.

1. Quick Study Guides: To be completed for each chapter and compiled into a binder for the entire year, as a study resource.
2. Vocabulary: Must make cards, keep and study for entire year
3. Flipped Lectures: View the lecture and take notes.
4. Powerpoint Templates and Labs: Templates are uploaded onto the website for students to print out prior to lecture on that chapter.
5. Lab Notebooks: Students must keep a lab notebook which is graded at the conclusion of each lab
6. APES in the News: Students must read, summarize and critique current events relating to environmental science

**Late Work and Absences:**

For full credit, work must be turned on the day it is due. Absent students should make plans to assure that someone does bring their work in on the day it is due. Late work is half credit. (Special circumstances may be taken into account, and I urge parents and/or students to contact me to discuss such events.) Quizzes may not be made up for any reason. If absent, students may make up one test per semester. Any other missed test is entered as a zero, and will be the one low test grade that is dropped each semester. A low grade is dropped in each grading category at the end of each semester.

**Contact:**

Please contact me at any time via email or phone:

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Conference Period: 6th (1:50 – 2:46)